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PTO/SB/01 (12-97)

Approved for use through 9/30/00. OMB 0651-0032

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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☒ Declaration Submitted with Initial Filing ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number 87552.99R272/SE-1528PD

First Named Inventor Jifa Hao, et al.

**COMPLETE IF KNOWN**

Application Number TBA

Filing Date Herewith

Group Art Unit Unknown

Examiner Name Unknown

As a below named inventor, I hereby declare

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

POWER SEMICONDUCTOR DEVICE WITH HIGH AVALANCHE CAPABILITY

the specification of which (Title of the Invention)

☒ is attached hereto  
OR

☐ was filed on (MM/DD/YYYY)

as United States Application Number or PCT International

Application Number

TBA

and was amended on (MM/DD/YYYY)

(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
None			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.
None		

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U. S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)
None		

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☐ Customer Number

OR

☒ Registered practitioner(s) name/registration number listed below

Place Customer  
Number Bar Code  
Label here

Name	Registration Number	Name	Registration Number
Thomas R. FitzGerald	26,730	Ronald S. Kareken	20,573
Lee J. Fleckenstein	36,136	Laurence S. Roach	45,044
Ronald J. Kisicki	38,205	Douglas A. Balog	42,288
Bidyut K. Niyogi	27,071		

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☐ Customer Number or Bar Code Label ☒ Correspondence address below

Name	Thomas R. FitzGerald				
Address	Jaeckle Fleischmann & Mugel, LLP				
Address	39 State Street				
City	Rochester	State	NY	ZIP	14614-1310
Country	USA	Telephone	(716) 262-3640	Fax	(716) 262-4133

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:	<input type="checkbox"/> A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])			Family Name or Surname				
Jifa			Hao				
Inventor's Signature					Date	8/21/2000	
Residence: City	White Haven	State	PA	Country	USA	Citizenship	CHINA
Post Office Address	300 Elmira Street, #4						
Post Office Address							
City	White	State	PA	ZIP	18661	Country	USA

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto

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PTO/SB/02A (3-97)

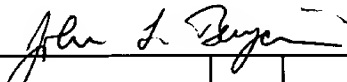
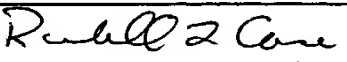
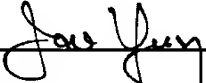
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## DECLARATION

### ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
John L.				Benjamin			
Inventor's Signature				Date		8/21/00	
Residence: City	Mountaintop	State	PA	Country	USA	Citizenship	USA
Post Office Address	185 Sutherland Drive						
Post Office Address							
City	Mountaintop	State	PA	ZIP	18707	Country	USA
<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Randall L.				Case			
Inventor's Signature				Date		8/25/00	
Residence: City	Mountaintop	State	PA	Country	USA	Citizenship	USA
Post Office Address	3650 Blytheburn Road						
Post Office Address							
City	Mountaintop	State	PA	ZIP	18707	Country	USA
<b>Name of Additional Joint Inventor, if any:</b>				<input type="checkbox"/> A petition has been filed for this unsigned inventor			
Given Name (first and middle [if any])				Family Name or Surname			
Jae J.				Yun			
Inventor's Signature				Date		8/22/2000	
Residence: City	Mountaintop	State	PA	Country	USA	Citizenship	USA
Post Office Address	297 Schultz Lane						
Post Office Address							
City	Mountaintop	State	PA	ZIP	18707	Country	USA

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**INTERSIL CORPORATION**  
**Assignment**

As a below named inventor or joint inventor of an invention or improvement entitled:

**POWER SEMICONDUCTOR DEVICE WITH HIGH AVALANCHE  
CAPABILITY**

for which I have executed an application for Letters Patent of the United States of America, on an even date herewith; and

WHEREAS, INTERSIL CORPORATION, a corporation organized and existing under the laws of the State of Delaware, having its principal office and place of business in the City of Palm Bay, State of Florida, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have sold, assigned, transferred, and set over, and by these presents do hereby sell, assign, transfer and set over, unto said INTERSIL CORPORATION, its successors, legal representatives, and assigns, my entire right, title and interest in, to, and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuation applications thereof, and all Letters Patent of the United States of America which may be granted thereof and all reissues and extensions hereof, and all applications for Letters Patents which may be filed for said invention in any country or countries foreign to the United States of America, including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention, all rights to register said invention in appropriate registries, and all Letters Patent which may be granted for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and I hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to said INTERSIL CORPORATION, its successors, legal representatives, and assigns, in accordance with the terms of this instrument.

And I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

And I hereby further covenant and agree that I will communicate to said INTERSIL CORPORATION, its successors, legal representatives, and assigns, any fact known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisions, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid said INTERSIL CORPORATION, its successors, legal representatives, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

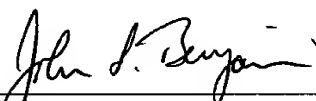
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IN TESTIMONY WHEREOF, I authorize and affirm said assignments with the signatures set forth below on the indicated date(s).

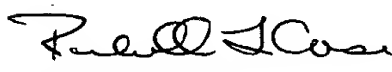
Inventor:

  
\_\_\_\_\_  
Jifa Hao

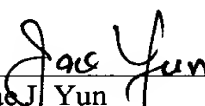
Date: 8/21, 2000

  
\_\_\_\_\_  
John L. Benjamin

Date: 8/21, 2000

  
\_\_\_\_\_  
Randall L. Case

Date: 8/25, 2000

  
\_\_\_\_\_  
Jae J. Yun

Date: 8/22, 2000